

Union Landing Viaduct Storm Damage Permanent Restoration Project

01-MEN-1 PM 82.0/82.3
47260

Focused Initial Study with Proposed Negative Declaration



Prepared by the
State of California Department of Transportation

June 2008



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed storm damage project located in Mendocino County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, and potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 3 Office of Environmental Planning at 2389 Gateway Oaks Drive, Room 100, Sacramento, CA 95833 and at the Fort Bragg Library at 499 East Laurel Street, Fort Bragg, CA 95437, phone (707) 964-2020.
- We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Mr. Lupe Jimenez, Senior Environmental Planner
North Region Environmental Planning
California Department of Transportation
P.O. Box 942874
Sacramento, CA 94274-0001

- Submit comments via email to: Lupe_Jimenez@dot.ca.gov
- Submit comments by the deadline: July 15, 2008.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Tammy Massengale, North Region Environmental Planning, P.O. Box 911, Marysville, CA 95901; (530) 741-4041 Voice, or use the California Relay Service TTY number, 1-800-735-2929.


Union Landing Viaduct Storm Damage
01-MEN-1 PM 82.0/82.3
EA 01-47260

FOCUSED INITIAL STUDY with Proposed Negative Declaration

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

June 12, 2008
Date of Approval


John D. Webb, Chief
North Region Environmental Services
California Department of Transportation

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) is proposing a storm damage permanent restoration project on Highway 1 from postmile (PM) 82.0 to 82.3, in Mendocino County north of Westport. The project is necessary due to substantial bluff erosion caused by the 2005 and 2006 winter storms. The project work includes constructing two retaining walls at PM 82.09 and 82.21. In addition, work includes replacing metal beam guardrail, improving drainage, paving, and relocating telephone utilities. The project will have appropriate sediment control devices, aesthetic treatments, revegetate disturbed areas, place erosion and water quality control protection measures, and use both state and federal funding.

Determination

Caltrans has prepared a Focused Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- Would have minimal or no effect on agricultural resources, air quality, biological resources, cultural resources, floodplain, geology/soils, hazardous material, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation and traffic, and utilities/service systems.
- The proposed project would have a less than significant effect for the following resources: biology, visual/aesthetics, and hydraulics/water quality.

John Webb
Chief, Office of Environmental Services - South
North Region Environmental Planning
California Department of Transportation

Date

Initial Study

Project Title

Union Landing Viaduct Storm Damage

Lead Agency Name, Address and Contact Person

California Department of Transportation
2389 Gateway Oaks Drive, Suite 100
Sacramento, CA 95833
Mr. Lupe Jimenez, Chief Branch S-4
(916) 274-0557

Project Location

The project site is located on Highway 1 in Mendocino County from PM 82.0 to PM 82.3. This location is approximately 25 miles north of Fort Bragg, California.

Project Sponsor's Name and Address

California Department of Transportation
John Webb, Chief, North Region Environmental Management
2389 Gateway Oaks Drive, Suite 100
Sacramento, CA 95833

Purpose and Need

Purpose

The purpose of this project is to stabilize and restore the roadway on Highway 1 near Westport in Mendocino County from postmile (PM) 82.0 to PM 82.3, thus, maintaining mobility across California.

Need

This project is needed to maintain the mobility performance of Highway 1 from PM 82.0 to PM 82.3, and is considered at risk of failure due to storm damage and continued bluff erosion from winter storms.

Description of Project

The proposed project is referred to as the Union Landing Viaduct Storm Damage Permanent Restoration Project, located between PM 82.0 to PM 82.3 on Highway 1 in Mendocino County. The project consists of work at PM 82.09 and PM 82.21 which includes constructing two retaining walls. Wall 1 is adjacent to the existing Union Landing Viaduct (PM 82.1) and wall 2 is approximately 300 feet north.

Caltrans, in conjunction with the Federal Highway Administration (FHWA), proposes storm damage repairs to Highway 1 as the heavy winter rains of the 2005 and 2006 winter storm season caused bluff erosion. The Union Landing Viaduct Storm Damage Permanent Restoration Project is eligible for federal emergency relief funding under the Federal Highway Administration (FHWA) Storm Damage Program for permanent restoration.

Emergency Relief (ER) funding is available with FHWA funding to help re-establish transportation facilities that are Federal-aid highways damaged due to a declared “natural disaster.” Federal Emergency Relief has two components: Emergency Opening (EO) and Permanent Restoration (PR). Emergency repairs are repairs made during and immediately following a disaster to restore essential traffic, to minimize the extent of damage, or to protect remaining facilities. Permanent repairs are repairs undertaken, normally after emergency repairs have been complete, to restore the highway. Improvements or betterments are not intended to be included in permanent restoration storm damage projects, however building to current standards is supported by FHWA and is not considered betterment. In addition, if analysis indicates that repairing in kind would be more costly over time than a more permanent long-term repair, the long-term repair is permitted within the Emergency Relief Program.

In addition to the proposed retaining walls, the scope of work also consists of replacing metal beam guardrail (MBGR), improving drainage, paving, and relocating telephone utilities.

All drainage improvements will be at the highway level with down drains extending down 30 to 50 feet. The drainage improvements include culvert replacement at PM 82.19, which may include minor relocation of the cross culvert so it is perpendicular to the new wall, installing an underdrain on the east side of the roadway, adding and/or replacing horizontal drains, and installing a culvert at approximately PM 82.15.

Previously, four alternatives were considered:

Alternative 1: Building a retaining wall at PM 82.09 and PM 82.21

Alternative 2: Building a viaduct at PM 82.09 and a retaining wall at PM 82.21
Alternative 3: Retreating to the east

Alternative 4: No build

Alternative 2 was considered and rejected. This alternative was found to be more costly than alternative 1.

Alternative 3 was considered and rejected. This alternative does not address the purpose and need. In addition, environmental impacts and cost for excavation and disposal were considerably greater than alternatives 1 and 2. Excavation quantities were estimated up to 6 million cubic yards with cuts up to 250 feet high.

Alternative 4 was rejected as not meeting the purpose and need of restoring the integrity of Highway 1 at these two locations, PM 82.09 and PM 82.21.

Alternative 1 was chosen as the most appropriate alternative to consider. This alternative was chosen considering cost, environmental impacts, and meeting the purpose and need. The proposed project will be within the existing right of way; right of way limits are approximately 70 feet west and 100 feet east of the highway centerline. The elevation of right of way limits range from approximately 80 to 240-feet above sea level.

This portion of Highway 1 is a utility corridor for American Telegraph & Telephone (AT&T). AT&T will relocate utilities within the project footprint and outside of the Environmentally Sensitive Habitat Area (EHSA) #2 (refer to Attachment 2) to accommodate construction for this project. Utility relocation may be above ground, below ground, or located within a concrete barrier, and will avoid sensitive resources.

Surrounding Land Uses and Setting

The Westport Union Landing Beach State Park lies to the south of the project area. To the north is Juan Creek followed by Hardy Creek and timberland. To the east is considered remote residential.

The project's immediate environment is composed of an area approximately 80 to 240-feet above sea level overlooking the Pacific Ocean in Mendocino County. The area has expansive views westward of the Pacific Ocean, of coastal bluffs to the north and south, and of the Coast Range, which rises above the shoreline to the east.

Permits and Approvals Needed

Upon completion of final design for this project, the following agencies will be contacted in order to obtain their jurisdictional permits or approvals:

- North Coast Regional Water Quality Control Board (NCRWQCB): Clean Water Act of 1977, Section 401 certification
- Mendocino County Local Coastal Agency: Coastal Development Permit

- Statewide National Pollution Discharge Elimination System (NPDES) permit
- Nationwide 404 permit under the United States Army Corps of Engineers (USACE). However, the project will impact less than 0.1 acre of USACE jurisdiction waters and meets all qualification for a non-reporting nationwide permit.

Zoning

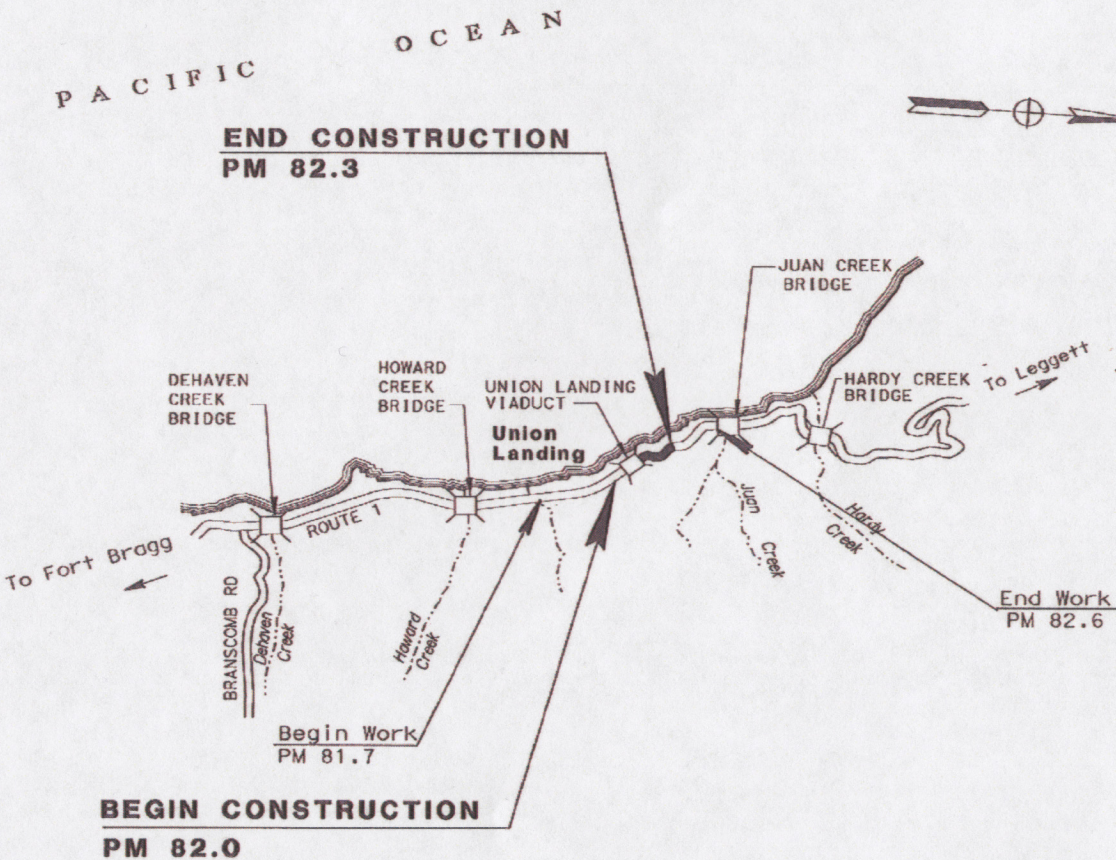
All areas within the construction area of the project are within Caltrans right of way, the transportation corridor. To the east the zoning is remote residential, with no housing in the immediate area. On the coastline south of the project area lays Westport Union Landing Beach State Park.

Project Location Map

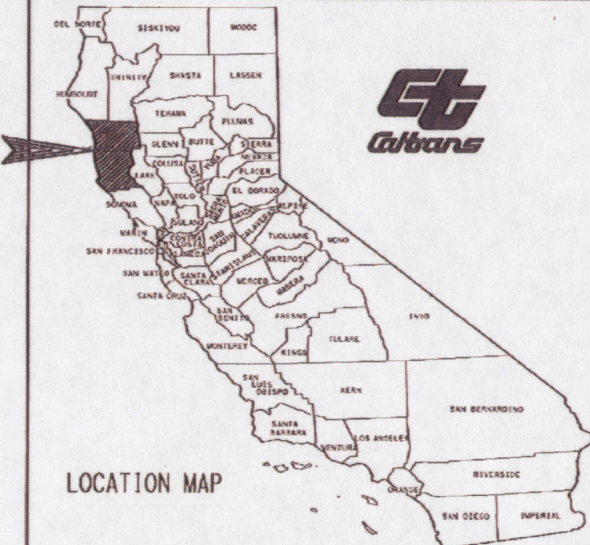
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN MENDOCINO COUNTY
ABOUT 5 MILES NORTH OF WESTPORT
AT UNION LANDING VIADUCT

To be supplemented by Standard Plans dated May, 2006



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	MEN	001	82.0 - 82.3	1	1



The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To get to the Caltrans web site, go to: <http://www.dot.ca.gov>

Project Engineer Date
Registered Civil Engineer



Plans Approval Date

Contract No.

CU 03232

EA 472601

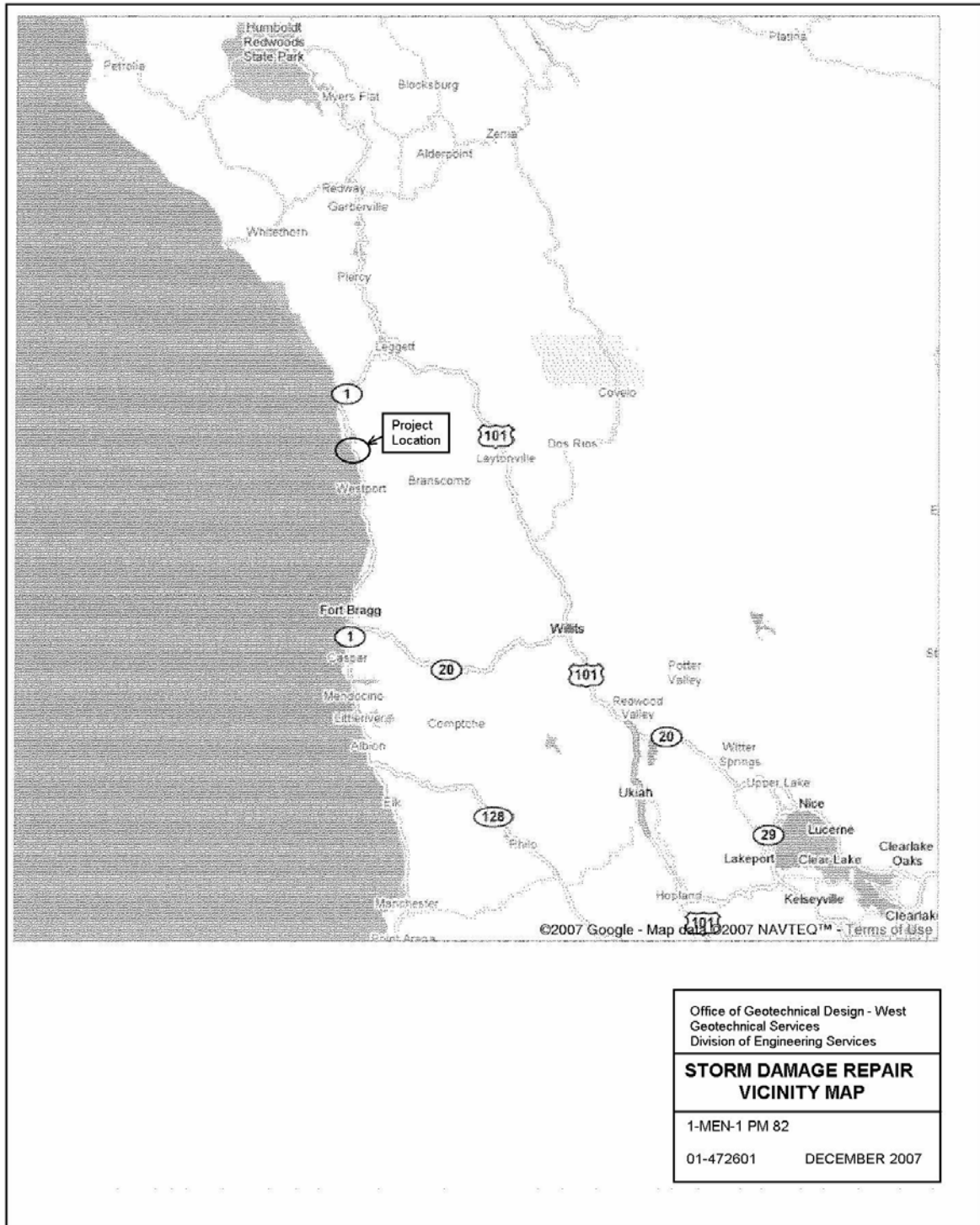
The Contractor shall possess the class (or classes) of license as specified in the "Notice to Contractors."

RELATIVE BORDER SCALE
IS IN INCHES



USERNAME => f1101
DGN FILE => 462701S1reMap.dgn

11-03-06
DATE PLOTTED => 11-03-06
14116



Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Less than Significant Impact” as indicated by the checklist on the following pages.

- | | |
|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> | Aesthetics |
| <input type="checkbox"/> | Agricultural Resources |
| <input type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Biological Resources |
| <input type="checkbox"/> | Cultural Resources |
| <input type="checkbox"/> | Geology/Soils |
| <input type="checkbox"/> | Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> | Hydrology/Water Quality |
| <input type="checkbox"/> | Land Use/Planning |
| <input type="checkbox"/> | Mineral Resources |
| <input type="checkbox"/> | Noise |
| <input type="checkbox"/> | Population/Housing |
| <input type="checkbox"/> | Public Services |
| <input type="checkbox"/> | Recreation |
| <input type="checkbox"/> | Transportation/Traffic |
| <input type="checkbox"/> | Utilities/Service Systems |
| <input type="checkbox"/> | Mandatory Findings of Significance |

Impacts Checklist

The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. The checklist is followed by a focused discussion of biology, visual/aesthetic, and hydrology/water quality issues relating to this project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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I. AESTHETICS — Would the project:

a) Have a substantial adverse effect on a scenic vista?

Discussion of impacts starts at the Visual /Aesthetics section of this Initial Study.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Substantially degrade the existing visual character or quality of the site and its surroundings?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Discussion of impacts starts at the Visual /Aesthetics section of this Initial Study.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section (b, d) are based on Visual Impact Analysis February 2008.

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on various field reviews in 2007.

III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the Air Quality Report, June 2007.

IV. BIOLOGICAL RESOURCES — Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of impacts starts at the Biological/Coastal section of this Initial Study.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Discussion of impacts starts at the Biological/Coastal section of this Initial Study.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section(a, c, d, f) are based on the Natural Environmental Study and Botanical/ESHA Assessment and Reduced Buffer Analysis, April 2008.

V. CULTURAL RESOURCES — Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Disturb any human remains, including those interred outside of formal cemeteries?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the amended Historic Resource Memo, updated February 2008.

VI. GEOLOGY AND SOILS — Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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ii) Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Temporary construction equipment generated ground shaking may occur during construction.

iii) Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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iv) Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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No movement from slope indicators.

b) Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on conversations with Project Engineer and Geotechnical February 2008 (Geotechnical Report December 2007).

VII. HAZARDS AND HAZARDOUS MATERIALS —

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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All treated wood waste (TWW) from guardrails and some signs will either be re-used on-site or by Maintenance, or will be disposed of in an appropriate permitted facility. Additionally, TWW must be tracked by a combination of Caltrans approved reporting and record-keeping requirements in accordance with Department of Toxic Substances requirements.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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accident conditions involving the release of hazardous materials into the environment?

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determination in this section is based on review of the Initial Site Assessment June 2007.

VIII. HYDROLOGY AND WATER QUALITY —

Would the project:

a) Violate any water quality standards or waste discharge requirements?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Discussion of impacts starts at the Storm Water/Water Quality section of this Initial Study.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Project drainage work includes realigning a culvert, installing a new culvert, horizontal drains, under-drains, and a dike to convey drainage and storm water. Shoulder improvements will result in a 0.06-acre increase in impervious surface

Discussion of impacts starts at the Storm Water/Water Quality section of this Initial Study.

e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Discussion of impacts starts at the Storm Water/Water Quality section of this Initial Study.

f) Otherwise substantially degrade water quality?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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j) Result in inundation by a seiche, tsunami, or mudflow?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section (b, d, f, g, h, i, j), are based on the Floodplain Analysis June 2007 and the Water Quality Report March 2008.

IX. LAND USE AND PLANNING — Would the project:

a) Physically divide an established community?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on conversations with Project Engineer, February 2008.

X. MINERAL RESOURCES — Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on conversations with Project Engineer and Geotechnical February 2008 (Geotechnical Report December 2007).

XI. NOISE — Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the Noise Report, June 2007.

XII. POPULATION AND HOUSING — Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the scope and location of the project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the scope and location of the project.

XIV. RECREATION —

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the scope and location of the project.

XV. TRANSPORTATION/TRAFFIC — Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in inadequate emergency access?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Result in inadequate parking capacity?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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As required in the Traffic Management Plan, traffic control during construction will accommodate bicycle traffic on this portion of the Pacific Coast Bike Route, and accommodate any bicycle races or private bike touring company activities. An improvement proposed with this project is reestablishment and construction of a 4-foot paved shoulder for a portion of the west side of Highway 1 and the majority of the eastern side of Highway 1 in the project limits. Shoulders along this section of Highway 1 are not continuous, and construction of a 4-foot shoulder benefits bicycle traffic and is consistent with the Mendocino County Local Coastal Plan and with the Route Concept Report for Highway 1.

“No Impact” determinations in this section are based on the Traffic Management Plan January 2008.

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Require or result in the construction of new storm water drainage facilities or expansion of existing

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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facilities, the construction of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Project drainage work includes, realigning a culvert, installing a new culvert, horizontal drains, under-drains, and a dike to convey drainage and storm water. This portion of Highway 1 is a utility corridor for American Telegraph & Telephone (AT&T). AT&T will relocate utilities within the project footprint and outside of the Environmentally Sensitive Habitat Area (EHSA) #2 (see Attachment 2) to accommodate construction for this project. Utility relocation may be above ground, below ground, or located within a concrete barrier, and will avoid sensitive resources.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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All treated wood waste (TWW) from guardrails and some signs will either be re-used on-site or by Maintenance, or will be disposed of in an appropriate permitted facility.. Additionally, TWW must be tracked by a combination of Caltrans approved reporting and record -keeping requirements in accordance with Department. of Toxic Substances requirements.

g) Comply with federal, state, and local statutes and regulations related to solid waste?
See f above.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"No Impact" determinations in this section are based on conversations with Project Engineer, Biologist and Water Quality Engineer, February and March 2008.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Does the project have impacts that are individually limited, but cumulatively considerable?
 (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Affected Environment, Environmental Consequences, and Mitigation Measures

Biological Environment

Biological Resources

Regulatory Setting

Because the proposed project is located adjacent to the Pacific Ocean, there are several federal, state, and local agencies that have jurisdiction over the project site. The Clean Water Act (CWA) established the basic mandates for regulating discharges of pollutants into the waters of the United States. The CWA set requirements for water quality standards for all contaminants in surface waters. In 1999, the State Water Resources Control Board (SWRCB) issued a National Pollution Discharge Elimination System (NPDES) permit that regulates storm water discharges from Caltrans facilities. The permit requires Caltrans to maintain and implement an effective Storm Water Management Plan (SWMP) that identifies and describes the Best Management Practices (BMPs) used to control the discharge of pollutants to waters of the United States.

Upon completion of the final design for this project, the North Coast Regional Water Quality Control Board and Mendocino County Planning Department will be contacted to obtain their jurisdictional permits or approvals. Before construction begins, the project engineer will file a 30-day notice of construction required for the statewide NPDES permit.

Waters and Wetlands

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence

of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (ACOE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, primarily the Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB) regulate wetlands and waters. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If DFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The tops of the stream or lake banks, or the outer edge of riparian vegetation usually define CDFG jurisdictional limits, whichever is wider. Wetlands under jurisdiction of the ACOE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please refer to the Water Quality section for additional details.

Affected Environment

No federal wetlands were found in the project area. The culverts at PM 82.19 and 82.10 convey water from seasonal drainages. Water comes from storm runoff and sheet flow from the hill above. As the waters directly flow to the Pacific Ocean, they are considered waters of the United States. The drainage immediately above and below the culvert at PM 82.19 is unvegetated. Riparian vegetation surrounds the drainage starting approximately 21-feet above the culvert inlet. The drainage immediately above the culvert at PM 82.10 is surrounded by riparian vegetation.

Impacts

Utilities and traffic signal interconnect cable may be placed in a ditch along the east side of the roadway at PM 82.10, which is adjacent to an Environmental Sensitive Habitat Area (ESHA) (reference in Coastal section) and may affect the riparian area immediately adjacent to the inlet at PM 82.10. For the proposed cross-culvert at PM 82.15, no impacts are expected to affect any riparian areas. The proposed work near PM 82.19 is not expected to affect any riparian areas. The riparian area is 20-feet up slope from the proposed work.

Avoidance and Minimization Measures

All work will be performed within Caltrans right of way or within prescriptive easement areas. Minor vegetation removal is anticipated due to the scope of work. Replacement measures shall include re-vegetation of native species at a minimum ratio of 1:1, and best management practices (BMPs). No trees in the project vicinity will be impacted, and no impacts to migratory birds are anticipated. Environmental Sensitive Area (ESA) fencing will be placed for ESHA #2. If any vegetation is removed in the ditch directly adjacent to the inlet at PM 82.10, replacement replanting will occur.

Coastal Zone

Regulatory Setting

The Coastal Zone Management Act of 1972 (CZMA) is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with approved coastal management plans are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California had developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976 to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA; they include the protection and expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own management plans, the California Coastal Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own local coastal programs (LCPs). LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

Within the Mendocino County LCP, Chapter 20.496 of the coastal zoning code includes policies that apply to ESHAs. Buffer areas are described and defined in Section 20.496.020 as an area that shall be established adjacent to all environmentally sensitive habitat areas. The purpose of a buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from significant degradation resulting from future developments. The width of the buffer area shall be a minimum of 100-feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game (if applicable), and County Planning Staff, that 100-feet is not necessary to protect the resources of that particular habitat area and the adjacent upland transitional habitat function of the buffer from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the environmentally sensitive habitat areas and shall not be less than 50-feet in width. This section describes a variety of standards for determining the allowable width of the buffer area, including standards for development permitted within the buffer area. Mendocino County Code Section 20.496.025(7) further specifies development that is allowed in wetlands, including incidental public service purposes.

Affected Environment

Along the immediate east side of the highway, the terrain slopes upward at a steep gradient, and vegetative cover consists mostly of grasses. Further up the slope is

coastal scrub dominated by coyote bush. The vegetation along the west shoulder of the highway is mostly comprised of various native and non-native grasses and forbs. The project vicinity is of relatively low biological value as it is dominated by invasive species. West of the right of way, the terrain is mostly unvegetated and slopes steeply toward the beach. A list of plants identified at the project site is referenced in Attachment 1.

Botanical studies were done within the area extending 100-feet around the project footprint to satisfy the conditions of the Coastal Element of the Mendocino County General Plan. Two areas are located within the 100-foot study buffer of the project boundary. These 2 areas meet the definition of Environmental Sensitive Habitat Areas (ESHAs) as detailed in the Coastal Element of the Mendocino County General Plan (see Mendocino County Code chapters 20.496 & 20.532). Both are considered “riparian areas,” which also can be considered as wetlands under the single parameter wetland classification applied in the coastal zone. ESHA mapping is referenced in Attachment 2.

All drainages within the project vicinity originate in the hills east of the project site, beyond the map, and are not biologically isolated. This area is quite susceptible to erosion due to geology and hydrology factors.

ESHA #1 is the northernmost of the two ESHAs, and consists of a vegetated area starting about 21-feet uphill from a culverted drainage at PM 82.19. The total area within the study limits for ESHA #1 is 2,528 square feet. This ESHA has been identified due to the presence of riparian vegetation; the dominant plant species in ESHA #1 are willow (*Salix sitchensis*), and coyote bush (*Baccharis pilularis*). The existing buffer between the proposed project and ESHA #1 is 20-feet up the slope east of the culvert inlet located at PM 82.19.

ESHA #2 is a riparian area surrounding the drainage immediately uphill from the culvert located at PM 82.10. The total area within the study limits for ESHA #2 is 3,933 square feet. This ESHA has been identified due to the presence of riparian vegetation; the dominant plant species in ESHA #2 are willow (*Salix sitchensis*), bishop pine (*Pinus muricata*) and coyote bush (*Baccharis pilularis*). The distance between ESHA #2 and temporary or permanent construction features may be 3-feet or less, including utility relocation and traffic signal interconnect cable.

Construction activities would occur within 50-feet of ESHA #1. Construction of the retaining walls, replacement of a 24-inch culvert at PM 82.19, utility relocation and

road construction activities including paving and striping are planned within 50-feet of the ESHA.

Utility relocation may occur within 50-feet of ESHA #2 under the current proposal. Twenty-feet of Environmentally Sensitive Area (ESA) fencing will be placed along the highway at the base of the slope to prevent any equipment from entering the ESHA #2.

According to the Mendocino County LCP Chapter 20.496, highway activities can be allowed within ESHA buffers when avoidance is not feasible and when maintaining and improving Highway 1 along its existing alignment presents the least impacts.

The following analysis is based on the development criteria for a reduced buffer zone required by and outlined in chapter 20.496 of the Mendocino County Coastal Zoning Code.

Highway development and related ground disturbance have a lengthy history at this rural location without nearby housing. The ‘best site’ with the least environmental impact for these developments is the previously disturbed area contained in the project area. Development already exists within 50-feet of the ESHAs due to the highway, its associated structures and its drainage system. ESHA #1 is 21-feet from existing highway development, and ESHA #2 is 3-feet from existing highway development. All nearby project activities will take place down a steep slope from ESHA #1.

The proposed project will minimally change drainage flow to accommodate the new structures and storm water. No likelihood exists for equipment or materials inadvertently entering the riparian areas from construction activities except for the possible work along the ditch and inlet area at ESHA #2 which would be within 0 to 3-feet of the habitat. The proposed development would not significantly impact the functional capacity of the habitat area or the habitat areas’ ability to be self-sustaining and maintain species diversity. No known sensitive plant or animal species of concern were found in the project area.

In conclusion, there are potential impacts in the ditch area of ESHA #2, however, any potential disturbed areas will be replanted with native species at a minimum ratio of 1:1, and Environmental Sensitive Area (ESA) fencing will be placed on the project boundary to ESHA #2, shown in Attachment 2. No impacts are anticipated at ESHA

#1. Proposed developments within the buffer are not expected to have a significant impact on the adjacent habitat areas.

Avoidance and Minimization Measures

Impacts are not likely at ESHA #1 from construction activities under the proposed project. Work at the culvert inlet at PM 82.19 will be the closest work to ESHA #1. Although project activities are planned within the required 50-foot buffer of ESHA #1, the sensitive habitat area is vertically 21-feet above all project activities. This vertical buffer feature provides additional protection and therefore no impacts are expected. Construction of the retaining walls, replacement of a 24-inch culvert at PM 82.19, and road construction activities including paving and striping would occur within 50-feet of ESHA #1.

ESHA #2 has limited potential impacts, as only temporary construction work would impact ESHA #2, or is planned within the required 50-foot buffer of ESHA #2. In the buffer zones, avoidance minimization, and re-planting measures shall include re-vegetation of native species at a minimum ratio of 1:1, and best management practices (BMPs) and use of Environmental Sensitive Fencing (ESA) to protect ESHA #2.

Additionally, the proposed development would minimize the amount of added impervious surface area, limit the removal of vegetation to only those areas requiring grading with replacement at a minimum ratio of 1:1, treat all disturbed bare soil with erosion control, utilize equipment equipped with appropriate mufflers, and utilize dust controls whenever necessary.

The project will have several additional benefits. Hydraulic capacity should improve, and erosive energy and soil moisture should decrease with the proposed drainage improvements. Stability improvements gained from the retaining walls will improve the areas' ability to withstand major storm events. Bluff erosion will be reduced and water quality of the ocean in the immediate area will be improved.

Construction

Construction staging may occur at the Vista Point, which is a parking area a short distance south of the project site, the pullout within the project limits, and/or the Caltrans maintenance storage area directly across from the Vista Point. No Mendocino County Coastal Environmentally Sensitive Habitat Areas (ESHAs) occur

within 50-feet of the staging areas. The project is expected to take at least 2 years to complete.

Potential Impacts

1. This portion of Highway 1 is a utility corridor for American Telegraph & Telephone (AT&T). AT&T will relocate utilities within the project footprint and outside of the Environmentally Sensitive Habitat Area (EHSA) #2 (see Attachment 1) to accommodate construction for this project. Utility relocation may be above ground, below ground, or located within a concrete barrier, and will avoid sensitive resources.
2. Utilization of the three construction staging areas has been environmentally cleared. All vehicles and materials must stay on the pavement at Vista Point, and on the hard-packed areas at the pullout within the project limits and the Caltrans maintenance storage area directly across from the Vista Point.
3. Temporary construction equipment generated ground shaking may occur during construction.
4. All treated wood waste (TWW) from guardrail and some signs will either be re-used on-site or by Maintenance, or will be disposed of in an appropriate permitted facility. Additionally, TWW must be tracked by a combination of Caltrans approved reporting and record keeping requirements in accordance with Department of Toxic Substances requirements.
5. As required in the Traffic Management Plan, traffic control during construction will accommodate bicycle traffic on this portion of the Pacific Coast Bike Route, and accommodate any bicycle races or private bike touring company activities. An improvement proposed with this project is reestablishment and construction of a 4-foot paved shoulder for a portion of the west side of Highway 1 and the majority of the eastern side of Highway 1 in the project limits. Shoulders along this section of Highway 1 are not continuous, and construction of a 4-foot shoulder benefits bicycle traffic and is consistent with the Mendocino County Local Coastal Plan and with the Route Concept Report for Highway 1. Shoulder improvements result in a 0.06-acre increase in paved impervious area.
6. At Wall #1, PM 82.09, the shoulder widening will vary in width because Wall #1 is designed to join the existing viaduct to the south and the existing crib wall to the north. To meet this design constraint and because the paved shoulder will

extend to the edge of the new retaining wall, the southbound shoulder will taper and decrease from approximately 8-feet where the crib wall ends to a continuous 4-foot shoulder north through the project.

Visual /Aesthetics

Regulatory Setting

The California Environmental Quality Act (CEQA) establishes state policy to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

Highway 1 is one of the most highly scenic roadways in the state. The Mendocino County Coastal Commission has created strict regulations on where and how development can occur along the coast. Sec. 20.504.010 of the Visual Resource and Special Treatment Areas section of the Mendocino County Coastal Zoning Code states: “The purpose of this section is to insure that permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas.”

Visual quality along the existing alignment is highly scenic and the final project design should minimize effects on the visual setting. This section of Route 1 has been found ‘Eligible’ for scenic highway designation on the California Scenic Highway System. It is also part of the Pacific Coast Bike Route and gets a sizable amount of touring bicyclists during the summer. The overall visual quality of this area is extremely high.

Affected Physical Environment

The physical environment is an area approximately 80 to 240-feet above sea level overlooking the Pacific Ocean in Mendocino County. The environment has expansive views westward of the Pacific Ocean, of the coastal bluffs to the north and south and the Coast Range that rises above the shoreline to the east. Native Vegetation in the project area is characterized by the coastal prairie plant community, which includes mostly perennial bunch grasses, and other herbaceous plants common with the landscape. In addition to its biological importance, the Pacific Ocean represents a key visual resource along this segment of roadway. Additionally, several

other views can be seen in the project area. The forest edge is visible in the middle and background. To the north, riparian woodlands include redwood, Douglas fir, big leaf maple, willow and alder that follow the major stream corridors. Further inland to the east the redwood forest is visible.

Impacts

This project includes the construction of two retaining walls. There are several retaining walls in the area. The proposed wall 1 at PM 82.09 is located between an existing viaduct immediately to the south and an existing crib wall immediately to the north. From the Pacific Ocean, two additional retaining walls will add to the number of visual items along this section of the coastal bluffs. The tops of the new retaining walls located at roadway elevation will be capped with concrete. Both new retaining walls will include a safety barrier at the edge of the retaining wall. The concrete safety barrier, with a bicycle railing attached to the outer edge of the railing, is planned for Wall #1, at PM 82.09. A concrete safety barrier is the only option for wall #1. The shoulder width at this location is limited, and Wall #1 must adjoin the existing viaduct to the south and the existing crib wall to the north. These constraints limit the available room for construction, and add to the difficulty of constructing Wall #1. By aligning Wall #1 closely along the highway, the overall height of the wall will be reduced, minimizing visual impacts and costs. At Wall #2, PM 82.21, the distance between the coastal bluff and the roadway is greater allowing the additional room required to install the MBGR safety barrier.

Visual impacts when viewed from the highway will be low to moderate, with the most noticeable element being the metal beam guardrail (MBGR) or concrete safety barriers depending upon facility selection. As viewed from the Pacific Ocean, the proposed retaining walls and safety barriers will have the greatest visual impacts, from moderate to high. The down drain may be slightly visible from the Pacific Ocean depending on the color of the pipe. A retaining wall and a viaduct currently exist in the project area, with another retaining wall immediately north of the project limits. The two additional retaining walls between the three existing structures would not have a significant impact on the existing views from the Pacific Ocean.

MBGR is the least visually intrusive safety barrier and is commonly used along roadsides because of its see-through design, its ease in installation, and it being relatively inexpensive. MBGR is low enough that views of the foreground, middle ground and background are not impeded.

A solid concrete barrier would provide visual consistency between the barrier types but has less see through qualities than approved see-through barriers such as the Type-80. A solid concrete barrier could also house the AT&T utility requiring relocation through this section of the project, removing the utility as a visual intrusion. To maintain consistency and create a less busy visual impact, the solid concrete barrier is under consideration for the south wall. The solid safety barrier under consideration for the south wall is not a see-through barrier and would impede views of the foreground and the lower half of the middle ground.

Avoidance and Minimization Measures

Incorporating the following recommendations will reduce the level of impacts to an acceptable level:

1. The safety barriers will include bicycle safety cable systems at both wall locations. The metal beam guardrail at Wall #2, at PM 82.21, would have the shine removed with acid etching or another method. A solid safety barrier is proposed at , PM 82.09 for consistency with the existing viaduct barrier, and as an option to house the relocated AT&T utility.
2. If a down drain is required, color to blend into the surrounding landscape, the preferred colors are black or brown.
3. If soldier pile tieback walls are selected, color the steel I-Beams and the concrete whalers dark brown to match the color of the timber infill. If a secant pile wall (pile elements that overlap as to form an interlocking wall) is constructed, all steel I-Beams will be painted dark brown.
4. Steel I-beams and concrete whalers should match the color of the timber infill on the retaining walls as much as possible.

Storm Water/Water Quality

Regulatory Setting

In 1987 the Clean Water Act was amended and added section 402(p), which directed that storm water discharges are point source discharges and established a framework for regulating municipal and industrial storm water discharges under the National Pollutant Discharge Elimination System (NPDES) permitting program. Under this framework, storm water permits are required for urban areas with populations of 100,000 or more (Phase I) – defined as municipal separate storm sewer systems

(MS4s). The United States Environmental Protection Agency defined MS4s to include roads and highways that traverse and serve urban population centers.

As a result, all storm water discharges and non-storm water discharges from all Department properties, facilities, and activities are regulated under Order No. 99-06-Department Water Quality, NPDES NO. CAS000003, NPDES Permit, Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation (Statewide General NPDES Permit).

The Department has a revised Storm Water Management Plan (SWMP), July 2007) that includes new and revised best management practices (BMPs) categories, including:

1. Design Pollution Prevention BMPs – Preservation of existing vegetation, concentrated flow conveyance systems, slope/surface protection, etc.
2. Treatment BMPs – Infiltration and detention basins, traction sand traps, biofiltration, etc.
3. Construction Site BMPs – Temporary soil stabilization and sediment control, non-storm water management, and waste management
4. Maintenance BMPs – Litter pickup, materials handling, waste management, and street sweeping

The Construction Site BMPs Manual identifies a suite of construction BMPs that can be divided into the following categories: Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and Waste Management and Material Pollution Control BMPs.

Regional Regulatory Setting

The Regional Water Quality Control Board has the authority to implement water quality protection standards through the issuance of permits to protect waters of the State of California. Water Quality Objectives for the North Coast Region are specified in the Water Quality Control Plan for the North Coast Region (Basin Plan) prepared in compliance with the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act. The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of both surface waters and groundwater.

The North Coast Regional Water Quality Control Board 401 Certification Application contains the following specific language (request for information):

PROPOSED STORM WATER TREATMENT MEASURES (Describe the methods proposed to treat storm water runoff from the project site prior to entering the storm drainage system, wetlands, streams, etc. Please include proper design calculations to indicate that the proposed methods will treat runoff from the 85th percentile/24-hour storm event. See Standard Urban Stormwater Mitigation Plan (SUSMP) Guidelines available at:

*<http://ci.santa-rosa.ca.us/pworks/other/SW/SRSWManualFinalDraft.pdf>,
or upon request*

The new drainage system will be designed to manage the storm water runoff and the estimated water quality volume (WQV). The end treatment of the down drain should be designed to dissipate the erosive energy of the storm water at the outlet.

Affected Environment

The project is located in the Mendocino Coast Hydrologic Unit, Rockport Hydrologic Area, Wages Creek Hydrologic Sub-Area (HSA) 113.12, and within the jurisdictional boundary of the North Coast Regional Water Quality Control Board (Regional Water Board). Based upon the project's location, the receiving waters for the project limits are listed above as Wages Creek HSA, even though all storm water from the project will discharge to the Pacific Ocean, not Wages Creek.

The project will alter a portion of the existing drainage pattern (i.e. realigning a culvert, installing a new culvert, under-drains, shoulder widening, horizontal drains, a dike to convey drainages and storm water, and retaining wall construction) in an effort to reduce bluff erosion.

Potential Impacts

1. The primary constituent of concern is sedimentation during construction, as temporary impacts may occur due to increased erosion that could be transported into receiving waters.

2. A potential exists for spills and leaks of lubricant, oil and grease, and other fluids associated with vehicles and equipment during construction. An accidental release of these materials may pose a threat to water quality if contaminants enter the drainage system. A spill on the roadway would trigger immediate response actions to report, contain, and mitigate the incident.
3. The North Coast Regional Water Board typically requires a storm water plan for the Section 401 Water Quality Certification for projects that result in an increase in impervious surface. The increase in the impervious surface for the proposed project is 4.3 to 8.1% (0.03 to 0.06) acres in the project area, and will generate more storm water runoff than currently exists.
4. Current estimates show that the project will result in a disturbed soil area of less than one acre, and therefore will not be regulated under the California Construction General Permit.

Avoidance and Minimization Measures

The Pacific Ocean is the receiving water for this project. Waters of the State exist within the project limits; Section 401 Water Quality Certification will be required for the drainage work associated with the culvert at 82.19. Erosion concerns have been identified at the down drain outlet. The project proposes to reroute the cross culvert to a traditional drainage and use a T end treatment to dissipate the erosive energy at the down drain.

1. Construction will include all necessary erosion and water quality control practices to minimize potential for sedimentation through use of construction BMPs identified in the Department's Water Quality Handbook, Construction Site BMPs Manual. The Department's approved construction BMPs applicable to this project include measures for temporary sediment control (e.g. silt fences, fiber rolls, straw bale barriers) and temporary soil stabilization (e.g. hydraulic mulching, hydro seeding, straw mulch).
2. The Department has contingency plans, procedures, and emergency response crews trained for incident response. These procedures designate a chain of command for notification, evacuation, response, and cleanup of spills resulting from the use and/or transport of hazardous materials.
3. To address the potential temporary water quality impacts resulting from construction activities, Standard Special Provision (SSP) 07-340 will be included

as part of the Plans, Specifications, and Estimates. SSP 07-340 specifies water pollution control work and implement a Water Pollution Control Program (WPCP) during construction. SSP 07-346 addresses source control issues, Construction Site Management addresses handling procedures and BMPs for potential sources not addressed by contract line items.

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

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